



February 21, 2005

Mr. Deepak Joshi
Lead Aerospace Engineer (Structures),
National Transportation Safety Board, Room 5235
490 L'Enfant Plaza, SW
Washington, DC 20594

Dear Mr. Joshi:

This letter is in response to the NTSB NPRM related to 49 CFR Part 830 that would include certain events not currently covered by this regulation, specifically the reporting of TCAS Resolution Advisories (RAs).

United Airlines stands ready to assist the NTSB in gathering more data regarding near mid-air collisions. However, we believe the modification to reporting status proposed in 49 CFR Part 830 will be unproductive and burdensome to both the NTSB and the aviation industry. TCAS RAs are relatively common events, especially on closely spaced parallel approaches, and along common arrival/departure corridors, where aircraft level off with 1,000 feet of vertical separation. Flight data recorders and Flight Operations Quality Assurance (FOQA) programs do not record any data regarding the geometry of the encounter or separation distance. This aircraft based data would be useful in determining pilot reaction to the RA, but not in determining what caused it.

United suggests that a more useful method of gathering data on TCAS RAs is to use ground based Mode-S sensors to record RA downlink reports. Every TCAS II equipped aircraft transmits an RA downlink report any time an RA is generated. The FAA currently operates 23 long range Mode-S sensors and 121 terminal area Mode-S sensors. Each of these secondary surveillance radars is capable of receiving RA downlink reports. The advantage of collecting data this way is that ground-based radar can provide information on the geometry and separation distance that cannot be obtained from aircraft based data.

If the NTSB were to set up a program to monitor Mode-S sensors for potential near misses, they could classify the severity of the events and, at the same time, quantify the performance of TCAS. Additionally, in cases where it is warranted, the NTSB could notify the airline/operator of the event and request flight recorder data, FOQA data, and/or pilot reports. This approach would be very useful in quantifying the number of near misses, TCAS performance and provide useful data to analyze the root cause(s) of the event. It would also limit reporting to those events deemed necessary and would not burden either the NTSB or airlines/operators with collecting unproductive data.

Sincerely,

A handwritten signature in black ink, appearing to read "Bradley G. Thomann".

Captain Bradley G. Thomann
Managing Director, Flight Standards
and Training

CC:

WHQVF – Steve Forte
WHQSY – Hank Krakowski
DENTK – Joe Burns
DENTK – Rocky Stone
DENTK – Chuck Guy
DENTK – Brian Haynes
ATA- Basil Barimo